

REMARKS

Claims 1-13 and 15-20 are presented for examination.

Claims 1-13 and 15-20 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Watkins in view of Hansen. This rejection is respectfully traversed for the following reasons.

Claim 1 recites a data processing system operable with at least two types of software. The system comprises:

- a host interface for providing address, data and control signals from a host,
- a storage element for holding data accessible via the host interface, and
- alternate access circuitry for providing access to the storage element so as to access the data as a first data element in a first register when the system operates with a first type of software, and as a second data element in a second register when the system operates with a second type of software.

Hence, claim 1 requires accessing the data held in the storage element as a first data element in a first register when the system operates with a first type of software, and accessing the same data as a second data element in a second register when the system operates with a second type of software.

The Examiner holds Watkins to differ from the claimed invention only in that the reference does not disclose the claimed alternate access circuitry for providing access to the storage element so as to access the data as a first data element in a first register when the system operates with a first type of software, and as a second data element in a second register when the system operates with a second type of software.

Hansen is relied upon for disclosing the alternate access circuitry. In particular, in his Response to the Applicant's Arguments, the Examiner relies upon col. 15, lines 29-46 of Hansen.

Considering the reference, Hansen discloses a computer system having multiple simultaneous threads of execution. Each of the threads corresponds to different independent tasks. Data may be shared or maintained independently between each thread "since each thread has a distinct version of the local translation look-aside buffer (TLB) so that they may use the same address to mean different things, or may use the same address to reference the same memory" (col. 15, lines 29-46).

Hence, the reference does not expressly disclose the alternate access circuitry for providing access to the storage element so as to access the data as a first data element in a first register when the system operates with a first type of software, and as a second data element in a second register when the system operates with a second type of software, as claim 1 requires.

Moreover, the Examiner offered no logical reason, and no such reason is apparent, to support the conclusion that one having ordinary skill in the art would interpret the Hansen's computer system to correspond to the claimed alternate access circuitry.

It is respectfully submitted that one skilled in the art would have no reason for such an interpretation. In particular, Hansen describes a virtual memory system that translates a task specific virtual address into a generalized virtual address, and translates the generalized virtual address into a physical address (col. 2, lines 45-51, col. 4, lines 45-57). The reference does not disclose or suggest that "the same address meaning different things" corresponds to the claimed storage element storing data accessed as a first data

element in a first register when the system operates with a first type of software, and as a second data element in a second register when the system operates with a second type of software, as claim 1 requires.

Moreover, one skilled in the art would recognize that the term “thread” relates to portions of the same program that can run independently and concurrently. Therefore, multiple threads of execution described in the Hansen patent are executed when the Hansen system operates with the same software rather than with different types of software, as claim 1 requires.

Hence, Hansen does not describe the invention recited in claim 1. As the Examiner admits, Watkins also does not disclose the alternate access circuitry operating in the manner recited in claim 1. Hence, a combination of these references is not sufficient to suggest the claimed invention.

It is well settled that the test for obviousness is what the combined teachings of the references would have suggested to those having ordinary skill in the art. *Cable Electric Products, Inc. v. Genmark, Inc.*, 770 F.2d 1015, 226 USPQ 881 (Fed. Cir. 1985). In determining whether a case of prima facie obviousness exists, it is necessary to ascertain whether the prior art teachings appear to be sufficient to one of ordinary skill in the art to suggest making the claimed substitution or other modification. *In re Lalu*, 747 F.2d 703, 705, 223 USPQ 1257, 1258 (Fed. Cir. 1984).

As demonstrated above, the prior art teachings are not sufficient to suggest the claimed alternate access circuitry for providing access to the storage element so as to access the data as a first data element in a first register when the system operates with a first type of software, and as a second data element in a second register when the system

operates with a second type of software, as claim 1 requires. Therefore, the Examiner's conclusion of obviousness is not warranted.

Independent claim 15 recites a network interface comprising:

- a host interface for supplying address, data and control signals from a host,
- storage element for holding a data element accessible via the host interface, and
- alternate access circuitry coupled to the storage element for providing multiple paths for accessing the data element, and configured to select a path for accessing the data element depending on a type of software used to operate the network interface.

The Examiner contends that Watkins discloses alternate access circuitry coupled to the storage element for providing multiple paths for accessing the data element. However, the Examiner admits that Watkins does not disclose selecting a path for accessing the data element depending on a type of software used to operate the network interface.

Hansen is relied upon for disclosing selecting a path for accessing the data element depending on a type of software used to operate the network interface. However, as discussed above, Hansen uses the same software to operate different threads. Therefore, Hansen cannot teach or suggest selecting a path for accessing the data element depending on a type of software used to operate the network interface

Independent claim 18 recites a method of providing access to a storage element for holding a data element, comprising the steps of:

- accessing the data element via a first access path when a first type of software is used to operate the data processing system, and

- accessing the data element via a second access path when a second type of software is used to operate the data processing system.

The Examiner did not address the steps recited in claim 18. However, as demonstrated above, neither Watkins nor Hansen discloses accessing the data element via a first access path when a first type of software is used to operate the data processing system, and accessing the same data element via a second access path when a second type of software is used to operate the data processing system.


Claims 2-13, 16-17 and 19-20 respectively dependent from claims 1, 15 and 18 are defined over the prior art at least for the reasons presented above.

In view of the foregoing, and in summary, claims 1-13 and 15-20 are considered to be in condition for allowance. Favorable reconsideration of this application is respectfully requested.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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